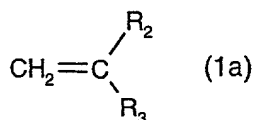


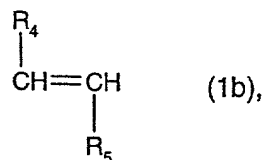
Claims:

1. A crosslinkable or polymerizable prepolymer that is obtainable by
 - (a) copolymerizing at least one hydrophilic monomer having one ethylenically unsaturated double bond and at least one crosslinker comprising two or more ethylenically unsaturated double bonds in the presence of a chain transfer agent having a functional group; and
 - (b) reacting one or more functional groups of the resulting copolymer with an organic compound having an ethylenically unsaturated group.

2. A prepolymer according to claim 1, wherein the hydrophilic monomer according to step (a) is a radical of formula



or



wherein R_2 is hydrogen or $\text{C}_1\text{-C}_4$ -alkyl, R_4 is $\text{C}_1\text{-C}_4$ -alkyl, phenyl or a radical $-\text{C}(\text{O})\text{OY}_9$, wherein Y_9 is hydrogen or unsubstituted or hydroxy-substituted $\text{C}_1\text{-C}_4$ -alkyl, R_5 is a radical $-\text{C}(\text{O})\text{Y}_9'$ or $-\text{CH}_2\text{-C}(\text{O})\text{OY}_9'$ wherein Y_9' independently has the meaning of Y_9 , and R_3 is

(i) a non-ionic substituent selected from $\text{C}_1\text{-C}_6$ -alkyl which is substituted by one or more same or different substituents selected from the group consisting of $-\text{OH}$, $\text{C}_1\text{-C}_4$ -alkoxy and $-\text{NRR}'$, wherein R and R' are each independently of another hydrogen or unsubstituted or hydroxy-substituted $\text{C}_1\text{-C}_6$ -alkyl or phenyl; phenyl which is substituted by hydroxy, $\text{C}_1\text{-C}_4$ -alkoxy or $-\text{NRR}'$, wherein R and R' are as defined above; a radical $-\text{COOY}$, wherein Y is $\text{C}_1\text{-C}_4$ -alkyl, $\text{C}_1\text{-C}_{24}$ -alkyl which is substituted by hydroxy, $\text{C}_1\text{-C}_4$ -alkoxy, $-\text{O-Si}(\text{CH}_3)_3$, $-\text{NRR}'$ wherein R and R' are as defined above, a radical $-\text{O}-(\text{CH}_2\text{CH}_2\text{O})_{1-24}\text{-E}$ wherein E is hydrogen or $\text{C}_1\text{-C}_6$ -alkyl, or a radical $-\text{NH-C}(\text{O})\text{-O-G}$, wherein $-\text{O-G}$ is the radical of a saccharide with 1 to 8 sugar units or is a radical $-\text{O}-(\text{CH}_2\text{CH}_2\text{O})_{1-24}\text{-E}$, wherein E is as defined above, or Y is $\text{C}_5\text{-C}_8$ -cycloalkyl which is unsubstituted or substituted by $\text{C}_1\text{-C}_4$ -alkyl or $\text{C}_1\text{-C}_4$ -alkoxy, or is unsubstituted or $\text{C}_1\text{-C}_4$ -alkyl- or $\text{C}_1\text{-C}_4$ -alkoxy-substituted phenyl or $\text{C}_7\text{-C}_{12}$ -aralkyl; $-\text{CONY}_1\text{Y}_2$ wherein Y_1 and Y_2 are each independently hydrogen, $\text{C}_1\text{-C}_4$ -alkyl, $\text{C}_1\text{-C}_{12}$ -alkyl, which is substituted by hydroxy, $\text{C}_1\text{-C}_4$ -alkoxy, a radical $-\text{CH}(\text{OR}_{18})_2$ wherein R_{18} is hydrogen, $\text{C}_1\text{-C}_4$ -alkyl or $\text{C}_2\text{-C}_5$ -alkanoyl, or a radical $-\text{O}-(\text{CH}_2\text{CH}_2\text{O})_{1-24}\text{-E}$ wherein E is as defined above, or Y_1 and Y_2 together with the adjacent N -atom form a five- or six-membered heterocyclic ring

having no additional heteroatom or one additional oxygen or nitrogen atom; a radical $-OY_3$, wherein Y_3 is hydrogen; C_1 - C_4 -alkyl or C_1 - C_{12} -alkyl which is substituted by $-NRR'$; or is a radical $-C(O)-C_1$ - C_4 -alkyl; and wherein R and R' are as defined above; or a five- to seven-membered heterocyclic radical having at least one N-atom and being bound in each case via said nitrogen atom; or

(ii) an anionic substituent selected from C_1 - C_6 -alkyl which is substituted by $-SO_3H$, $-OSO_3H$, $-OPO_3H_2$ and $-COOH$; phenyl which is substituted by one or more same or different substituents selected from the group consisting of $-SO_3H$, $-COOH$, $-OH$ and $-CH_2-SO_3H$; $-COOH$; a radical $-COOY_4$, wherein Y_4 is C_1 - C_{24} -alkyl which is substituted by $-COOH$, $-SO_3H$, $-OSO_3H$, $-OPO_3H_2$ or by a radical $-NH-C(O)-O-G'$ wherein G' is the radical of an anionic carbohydrate; a radical $-CONY_5Y_6$ wherein Y_5 is C_1 - C_{24} -alkyl which is substituted by $-COOH$, $-SO_3H$, $-OSO_3H$, or $-OPO_3H_2$ and Y_6 independently has the meaning of Y_5 or is hydrogen or C_1 - C_{12} -alkyl; or $-SO_3H$; or a salt thereof; or

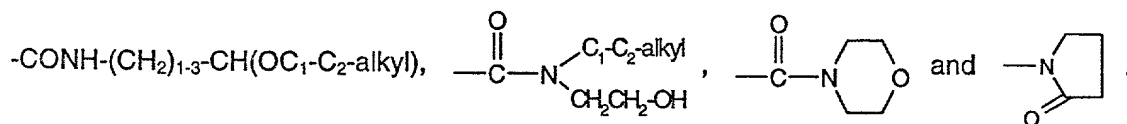
(iii) a cationic substituent selected from C_1 - C_{12} -alkyl which is substituted by a radical $-NRR'R''An^+$, wherein R , R' and R'' are each independently of another hydrogen or unsubstituted or hydroxy-substituted C_1 - C_6 -alkyl or phenyl, and An^+ is an anion; or a radical $-C(O)OY_7$, wherein Y_7 is C_1 - C_{24} -alkyl which is substituted by $-NRR'R''An^+$ and is further unsubstituted or substituted by hydroxy, wherein R , R' , R'' and An^+ are as defined above; or

(iv) a zwitterionic substituent $-R_1-Zw$, wherein R_1 is a direct bond or a carbonyl, carbonate, amide, ester, dicarboanhydride, dicarboimide, urea or urethane group; and Zw is an aliphatic moiety comprising one anionic and one cationic group each.

3. A prepolymer according to claim 1, wherein the hydrophilic monomer according to step (a) is a radical of formula

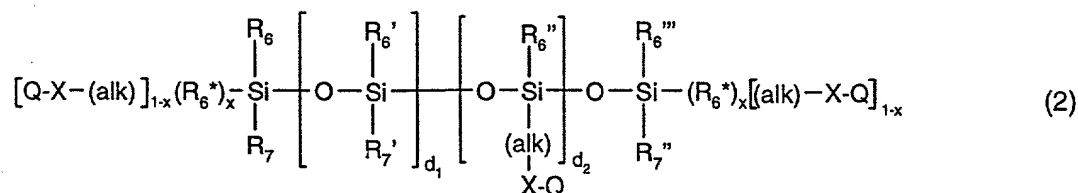


wherein R_2 is hydrogen or methyl and R_3 is a non-ionic substituent selected from $-COO-C_1$ - C_2 -alkyl, $-COO-(CH_2)_{2-4}-OH$, $-CONH_2$, $-CON(CH_3)_2$, $-CONH-(CH_2)_2-OH$,



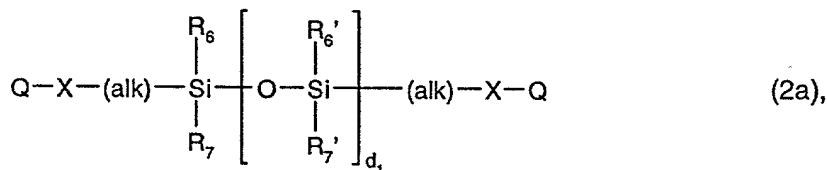
4. A prepolymer according to claim 1, wherein the crosslinker according to step (a) is a polysiloxane, perfluoroalkyl polyether or polysiloxane/perfluoroalkyl polyether block copolymer comprising in each case two or more ethylenically unsaturated double bonds.

5. A prepolymer according to claim 1, wherein the crosslinker according to step (a) is a polysiloxane of formula

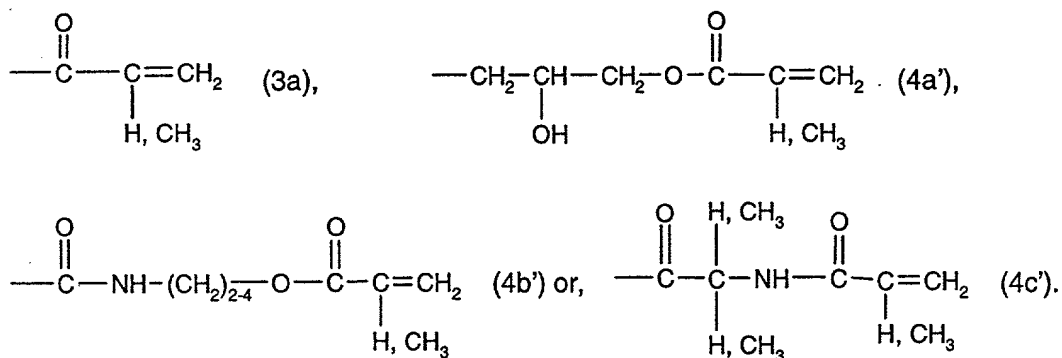


in which (alk) is alkylene having up to 20 carbon atoms which may be interrupted by -O-; X is -O- or -NR₈-, R₈ is hydrogen or C₁-C₆-alkyl, Q is an organic radical comprising a crosslinkable or polymerizable group, 80-100% of the radicals R₆, R₆', R₆'', R₆'', R₆*, R₇, R₇' and R₇'', independently of one another, are C₁-C₈-alkyl and 0-20% of the radicals R₆, R₆', R₆'', R₆'', R₆*, R₇, R₇' and R₇'', independently of one another, are unsubstituted or C₁-C₄ alkyl- or C₁-C₄-alkoxy-substituted phenyl, fluoro(C₁-C₁₈-alkyl), cyano(C₁-C₁₂-alkyl), hydroxy-C₁-C₆-alkyl or amino-C₁-C₆-alkyl, x is the number 0 or 1, d₁ is an integer of from 5 to 700, d₂ is an integer from 0 to 8 if x is 0, and is 2 to 10 if x is 1, and the sum of (d₁+d₂) is from 5 to 700.

6. A prepolymer according to claim 1, wherein the crosslinker according to step (a) is a polysiloxane of formula



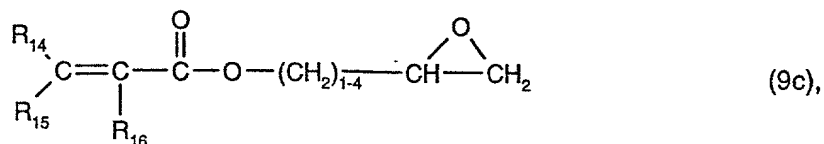
wherein R₆, R₆', R₇ and R₇' are each methyl, d₁ is an integer from 10 to 300, (alk) is linear or branched C₂-C₆ alkylene or a radical -(CH₂)₁₋₃-O-(CH₂)₁₋₃-, X is -O- or -NH- and Q is a radical of the formula

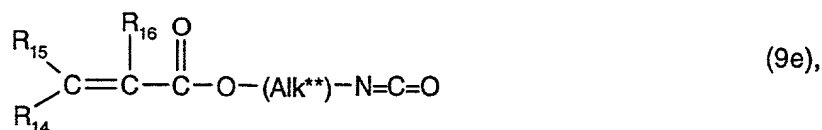
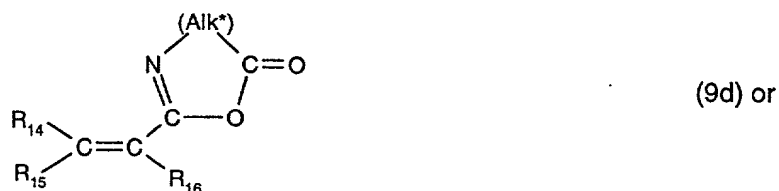


7. A prepolymer according to claim 1, wherein the functional chain transfer agent used in step (a) is an organic primary thiol having a hydroxy, amino, N-C₁-C₆-alkylamino or carboxy group.

8. A prepolymer according to claim 1, wherein prepolymer according to any one of claims 1 to 6, wherein, the components in step (a) are used in a molar ratio of from 0.5 to 5 equivalent chain transfer agent : 1 equivalent crosslinker : 5 to 60 equivalents hydrophilic monomer(s).

9. A prepolymer according to claim 1, wherein the copolymer of step (a) is reacted in step (b) with a compound of formula





wherein R_{13} is halogen, hydroxy, unsubstituted or hydroxy-substituted C_1 - C_6 -alkoxy or phenoxy, R_{14} , and R_{15} are each independently of the other hydrogen, C_1 - C_4 -alkyl, phenyl, carboxy or halogen, R_{16} is hydrogen, C_1 - C_4 -alkyl or halogen, R_{17} and R_{17}' are each an ethylenically unsaturated radical having from 2 to 6 C-atoms, or R_{17} and R_{17}' together form a bivalent radical $-\text{C}(\text{R}_{14})=\text{C}(\text{R}_{16})-$ wherein R_{14} and R_{16} are as defined above, and (Alk^*) is C_1 - C_6 -alkylene, and (Alk^{**}) is C_2 - C_{12} -alkylene.

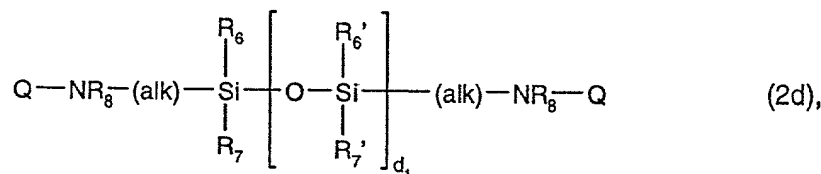
10. A process for the manufacture of a moulding, which comprises crosslinking a prepolymer obtainable according to claim 1 in a mould.

11. A process according to claim 10 wherein the moulding is an ophthalmic moulding and wherein the prepolymer is photo-crosslinked in an ophthalmic mould using visible or UV light.

12. A moulding obtainable by the process according to claim 10.

13. A moulding according to claim 12, which is a contact lens, intraocular lens, or artificial cornea.

14. A compound of formula



wherein R_6 , R_6' , R_7 , R_7' , R_8 , (alk) and Q are each as defined in claim 5.